Amendments to the Claims:

1-41. (Cancelled)

42. (Currently Amended) A composition for delivery of a biological agent to a basolateral factor of an epithelial surface, said composition comprising a targeting molecule linked to at least one biological agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein said targeting molecule comprises a J chain or portion thereof and the CH2 and CH3 domains of IgA or IgM, wherein said targeting molecule comprises the amino acid sequence selected from the group consisting of SEQ ID NOS: 114, 115, 116, 117, 118, and 119 and does not comprise a full-length immunoglobulin, and wherein said biological agent is not native to the targeting molecule and is not iodine.

43. (Previously Presented) The composition of claim 42 wherein said targeting molecule is covalently linked to said at least one biological agent.

44. (Previously Presented) The composition of claim 43, wherein said targeting molecule is covalently linked via at least one cysteine residue of the targeting molecule.

45. (Previously Presented) The composition of claim 43, wherein said targeting molecule is covalently linked via a peptide bond.

46. (Previously Presented) The composition of claim 43 wherein said targeting molecule is linked to said at least one a biological agent via a phosphodiester bond.

47. (Previously Presented) The composition of claim 42 wherein said targeting molecule is noncovalently linked to said at least one biological agent.

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48-51. (Cancelled)

52. (Previously presented) The composition of claim 42 wherein said targeting molecule contains at least four peptide domains having β-sheet character, separated by domains lacking β-sheet character.

53. (Cancelled)

54. (Previously presented) The composition of claim 42 wherein said targeting molecule further comprises a linear N-terminal domain.

55. (Previously Presented) The composition of claim 54 wherein said N-terminal domain comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:125, 126, 127, 128, 129, and Asn Lys.

56. (Previously presented) The composition of claim 42 wherein said targeting molecule comprises the C-terminal domain of a J chain.

57. (Previously Presented) The composition of claim 56 wherein said C-terminal domain comprises a linear peptide having β-sheet character.

58. (Currently Amended) The composition of claim 57 wherein said linear peptide comprises an amino acid sequence selected from the group consisting of ~~SEQ ID NOS: 130~~ SEQ ID NOS:130, 131, 132, 133, and 134.

59. (Previously Presented) The composition of claim 56 wherein said C-terminal domain comprises a covalently closed loop.

60. (Currently Amended) The composition of claim 59 wherein said covalently closed loop comprises an amino acid sequence selected from the group consisting of ~~SEQ ID NOS:135~~ SEQ ID NOS:135, 136, 137, 138, 139 and 140.

61. (Previously presented) The composition of claim 42, wherein said targeting molecule comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:1, 2, 3, 4, 5, and 6.

62. (Previously presented) The composition of claim 42, wherein said biological agent is selected from the group consisting of enzymes, antibodies, single chain antigen binding proteins, antigen combining sites, nucleic acids, carbohydrates and lipids.

63. (Previously presented) A pharmaceutical composition for delivery of a biological agent to a basolateral factor of an epithelial surface, comprising the composition of claim 42 and a pharmaceutically acceptable carrier.

64. (Currently Amended) The composition of claim 42, wherein said targeting molecule is linked to at least one biological agent via a substrate for an intracellular enzyme or an extracellular enzyme associated with or secreted from an epithelial barrier.

65. (Previously Presented) The composition of claim 64, wherein said enzyme is selected from the group consisting of proteases, glycosidases, phopholipases, esterases, hydrolases, and nucleases.

66. (Previously presented) The composition of claim 42, wherein said targeting molecule is linked to at least one biological agent via an amino acid side chain in an antibody combining site.

67.   (Previously presented) The composition of claim 42, wherein said targeting molecule comprises an immunoglobulin heavy chain or portion thereof linked to said J-chain or portion thereof.

68.   (Previously presented) The composition of claim 42, wherein said targeting molecule does not comprise an immunoglobulin light chain.

69.   (Previously Presented) The composition of claim 68, wherein said targeting molecule comprises an immunoglobulin heavy chain or portion thereof linked to said J-chain or portion thereof.

70-72. (Cancelled)

73.   (Previously Presented) A composition comprising a targeting molecule linked to at least one biological agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein said polypeptide comprises at least domain 2 of a J chain, and wherein the targeting molecule does not contain at least one of the domains selected from $C_H1\alpha$, $C_H2\alpha$, $C_H3\alpha$ and C_L.

74.   (Previously Presented) The composition of claim 73, wherein said targeting molecule is covalently linked to said at least one biological agent.

75.   (Previously Presented) The composition of claim 74, wherein said targeting molecule is covalently linked via at least one cysteine residue of the targeting molecule.

76.   (Previously Presented) The composition of claim 74, wherein said targeting molecule contains at least four peptide domains having β-sheet character, separated by domains lacking β-sheet character.

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77.   (Previously Presented) The composition of claim 74, wherein said targeting molecule is covalently linked via a peptide bond.

78.   (Previously Presented) The composition of claim 73, wherein said targeting molecule is noncovalently linked to said at least one biological agent.

79.   (New) A composition for delivery of a biological agent to a basolateral factor of an epithelial surface, said composition comprising a targeting molecule linked to at least one biological agent, wherein said targeting molecule comprises a polypeptide that: (a) forms a closed covalent loop; and (b) contains at least three peptide domains having beta-sheet character, each of the domains being separated by domains lacking beta-sheet character, wherein said targeting molecule comprises a J chain or portion thereof and the CH2 and CH3 domains of IgA or IgM, wherein said targeting molecule comprises the amino acid sequence encoded by nucleotides 1-414 of SEQ ID NO:7 or nucleotides 1-213 of SEQ ID NO:8 and does not comprise a full-length immunoglobulin, and wherein said biological agent is not native to the targeting molecule and is not iodine.

80.   (New) The composition of claim 79 wherein said targeting molecule comprises an amino acid sequence selected from the group consisting of SEQ ID NOS:120, 121, 122, 123, and 124.